

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB 02/03409

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-6, 8-16, 18-33 all in part

Present application comprises two claims identified by the same number 24. For sake of clarity, the second of said claim "24" was renumbered and referred to, where appropriate, as being claim 33.

Present claim 1 relates to a method involving a nucleic acid molecule defined by reference to a desirable characteristic or property, namely that it comprises a sequence of a gene which mediates at least one step in the differentiation of a stem cell.

Present claim 8 relates to an RNA molecule defined by reference to a desirable characteristic or property, namely that it is derived from one gene involved in stem cell differentiation.

The claims cover all methods involving all nucleic acid molecules and all RNA molecules, respectively, having this characteristic or property, whereas the application provides at least partial support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a certain number of such molecules, as indicated on pages 9-10, in table 4, in figures 4-54 and in claims 7 and 17.

In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define a product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Same remarks apply, mutatis mutandis, also to claims 2-6, 9-16 and 18-33.

Consequently, the analysis of present application, the separation of the inventions disclosed and the subsequent search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating, directly or indirectly, to the molecules as indicated in the passages mentioned above.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-33 all partially

1.1. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 4 and 5 (notch ligand jagged 1 (JAG1)).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

1.2. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 6 and 7 (notch ligand jagged 2 (JAG2)).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

2. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 8-11 (notch ligands delta-1 (DLL1), delta-like 1, delta-like 3 (DLL3) or delta-like 4 (DLL4)).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

3. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 12 and 17-29 (Wnt 13, WNT-1, WNT-2, WNT-2B, WNT-3, WNT-4, WNT-5A, WNT-6, WNT-7A, WNT-8B, WNT-10B, WNT-11, WNT-14, WNT-16).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

4. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims

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8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 13-16 (dickkopf1, dickkopf2, dickkopf3, dickkopf4).
Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

5. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 30-39 (FZD 1, FZD 2, FZD 3, FZD 4, FZD 5, FZD 6, FZD 7, FZD 8, FZD 9, FZD 10).
Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

6. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 40 (FRP).
Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

7. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 41, 42 and 45 (SARP 1, SARP 2, SARP 3).
Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

8. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 43 (FRZB).
Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

9. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 44 (FRPHE).

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Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

10. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 46 (CER 1).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

11. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 47-50 (DKK 1, DKK 2, DKK 3, DKK 4).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

12. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 51 (WIF-1).

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

13. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figures 52 and 53 (SRFP 1, SRFP 4). Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

14. Claims: 1-33 all partially

A RNA molecule derived from a coding sequence of one gene involved in stem cell differentiation, as claimed in claims 8-18 and concerning any of the RNA molecules comprising sequences identified in Figure 54.

Related methods, products, compositions and uses, as claimed in claims 1-7 and 19-33.

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Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

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Information on patent family members

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